[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2013-0834; Directorate Identifier 2012-NM-045-AD; Amendment 39-18227; AD 2015-16-02]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

SUMMARY: We are superseding Airworthiness Directives (AD) 2003-14-11, AD 2004-11-08, AD 2004-13-25, AD 2004-18-14, AD 2007-05-12, AD 2008-06-07, AD 2009-18-20, AD 2010-15-02, and AD 2012-04-07 that apply to certain Airbus Model A330 and A340 series airplanes. AD 2003-14-11, AD 2004-11-08, AD 2004-13-25, AD 2004-18-14, AD 2007-05-12, AD 2008-06-07, AD 2009-18-20, AD 2010-15-02, and AD 2012-04-07 required revising the maintenance program to incorporate certain maintenance requirements and airworthiness limitations; replacing certain flap rotary actuators; repetitively inspecting elevator servo-controllers and pressure relief valves of the spoiler servo controls; repetitively testing the elevator servo control loops, modifying the elevator servo controls, and repetitively replacing certain retraction brackets of the

main landing gear; and revising the airplane flight manual. This new AD requires revising the maintenance program or inspection program to incorporate certain maintenance requirements and airworthiness limitations. This new AD also removes Airbus Model A340-200, -300, -500, and -600 series airplanes from the applicability and adds Airbus Model A330-323 airplanes to the applicability. This AD was prompted by a determination that more restrictive maintenance requirements and airworthiness limitations are necessary. We are issuing this AD to address the aging effects of aircraft systems. Such aging effects could change the characteristics of those systems, which, in isolation or in combination with one or more other specific failures or events, could result in failure of certain life limited parts, which could reduce the structural integrity of the airplane or reduce the controllability of the airplane.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2013-0834; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus SAS, Airworthiness

Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet http://www.airbus.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2013-0834.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; fax 425-227-1149.

#### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

We issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to revise the following airworthiness directives that applied to certain Airbus Model A330 and A340 series airplanes.

- AD 2003-14-11, Amendment 39-13230 (68 FR 41521, July 14, 2003).
- AD 2004-11-08, Amendment 39-13654 (69 FR 31874, June 8, 2004).
- AD 2004-13-25, Amendment 39-13707 (69 FR 41394, July 9, 2004).
- AD 2004-18-14, Amendment 39-13793 (69 FR 55326, September 14, 2004).
- AD 2007-05-12, Amendment 39-14973 (72 FR 10057, March 7, 2007).

- AD 2008-06-07, Amendment 39-15419 (73 FR 13103, March 12, 2008; corrected April 15, 2008 (73 FR 20367)).
- AD 2009-18-20, Amendment 39-16017 (74 FR 46313, September 9, 2009).
- AD 2010-15-02, Amendment 39-16368 (75 FR 42589, July 22, 2010).
- AD 2012-04-07, Amendment 39-16963 (77 FR 12989, March 5, 2012).

The SNPRM published in the Federal Register on March 9, 2015 (80 FR 12360). We preceded the SNPRM with a notice of proposed rulemaking (NPRM) that published in the Federal Register on November 7, 2013 (78 FR 66861). The NPRM was prompted by a determination that more restrictive maintenance requirements and airworthiness limitations were necessary. The NPRM proposed to supersede AD 2003-14-11, Amendment 39-13230 (68 FR 41521, July 14, 2003); AD 2004-11-08, Amendment 39-13654 (69 FR 31874, June 8, 2004); AD 2004-13-25, Amendment 39-13707 (69 FR 41394, July 9, 2004); AD 2004-18-14, Amendment 39-13793 (69 FR 55326, September 14, 2004); AD 2008-06-07, Amendment 39-15419 (73 FR 13103, March 12, 2008; corrected April 15, 2008) (73 FR 20367)); and AD 2012-04-07, Amendment 39-16963 (77 FR 12989, March 5, 2012) to require actions intended to address the aging effects of aircraft systems. The NPRM proposed to require revising the maintenance program or inspection program, as applicable, to incorporate certain maintenance requirements and airworthiness limitations.

The SNPRM (80 FR 12360, March 9, 2015) proposed to supersede
AD 2007-05-12, Amendment 39-14973 (72 FR 10057, March 7, 2007); AD 2009-18-20,

Amendment 39-16017 (74 FR 46313, September 9, 2009); and AD 2010-15-02, Amendment 39-16368 (75 FR 42589, July 22, 2010); in addition to those ADs already identified in the NPRM (78 FR 66861, November 7, 2013), as well as to require more restrictive limitations and to add Airbus Model A330-323 airplanes to the applicability. We are issuing this AD to address the aging effects of aircraft systems. Such aging effects could change the characteristics of those systems, which, in isolation or in combination with one or more other specific failures or events, could result in failure of certain life limited parts, which could reduce the structural integrity of the airplane or reduce the controllability of the airplane.

The European Aviation Safety Agency (EASA) which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2013-0268, dated November 7, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition on certain Airbus Model A330 series airplanes. EASA AD 2013-0268 supersedes and retains the requirements of four EASA ADs and requires accomplishment of the actions specified in Airbus A330 Airworthiness Limitations Section (ALS) Part 4 – Aging Systems Maintenance, Revision 04, dated August 27, 2013. The MCAI states:

The airworthiness limitations for Airbus aeroplanes are currently published in Airworthiness Limitations Section (ALS) documents.

The airworthiness limitations applicable to the Ageing Systems Maintenance (ASM) are given in Airbus A330 ALS Part 4, which is approved by EASA.

Revision 04 of Airbus A330 ALS Part 4 introduces more restrictive maintenance requirements and/or airworthiness limitations. Failure to comply with these instructions could result in an unsafe condition.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2012-0020 [http://ad.easa.europa.eu/ad/2012-0020], which is superseded, and requires accomplishment of the actions specified in Airbus A330 ALS Part 4 at Revision 04.

In addition, this [EASA] AD also supersedes EASA AD 2006-0159 [http://ad.easa.europa.eu/ad/2006-0159], EASA AD 2008-0026 [http://ad.easa.europa.eu/ad/2008-0026] and EASA AD 2008-0160 [http://ad.easa.europa.eu/ad/2008-0160] [which correspond to FAA ADs 2007-05-12, Amendment 39-14973 (72 FR 10057, March 7, 2007); 2010-15-02, Amendment 39-16368 (75 FR 42589, July 22, 2010); and 2009-18-20, Amendment 39-16017 (74 FR 46313, September 9, 2009), respectively], whose requirements applicable to A330 aeroplanes have been transferred into Airbus A330 ALS Part 4.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2013-0834.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. We considered the comment received. An anonymous commenter supported the SNPRM (80 FR 12360, March 9, 2015).

#### Conclusion

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the SNPRM (80 FR 12360, March 9, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the SNPRM (80 FR 12360, March 9, 2015).

### Related Service Information under 1 CFR part 51

Airbus issued A330 Airworthiness Limitations Section (ALS) Part 4 – Aging Systems Maintenance, Revision 04, dated August 27, 2013, and Airbus A330 ALS Part 4 – Aging Systems Maintenance (ASM), Variation 4.1 and Variation 4.2, both dated July 23, 2014. This service information describes preventative maintenance requirements and associated airworthiness limitations applicable to aircraft systems susceptible to aging effects. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

## **Costs of Compliance**

We estimate that this AD affects 79 airplanes of U.S. registry.

We estimate that it will take about 2 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour.

Required parts will cost \$0 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$13,430, or \$170 per product.

# **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- 1. Is not a "significant regulatory action" under Executive Order 12866;
- 2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
  - 3. Will not affect intrastate aviation in Alaska; and
- 4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2013-0834; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### § 39.13 [Amended]

- 2. The FAA amends § 39.13 by
- a. Removing Airworthiness Directive (AD) 2003-14-11, Amendment 39-13230 (68 FR 41521, July 14, 2003); AD 2004-11-08, Amendment 39-13654 (69 FR 31874, June 8, 2004); AD 2004-13-25, Amendment 39-13707 (69 FR 41394, July 9, 2004); AD 2004-18-14, Amendment 39-13793 (69 FR 55326, September 14, 2004); AD 2007-05-12, Amendment 39-14973 (72 FR 10057, March 7, 2007);

AD 2008-06-07, Amendment 39-15419 (73 FR 13103, March 12, 2008; corrected April 15, 2008 (73 FR 20367));

AD 2009-18-20, Amendment 39-16017 (74 FR 46313, September 9, 2009);

AD 2010-15-02, Amendment 39-16368 (75 FR 42589, July 22, 2010);

AD 2012-04-07, Amendment 39-16963 (77 FR 12989, March 5, 2012); and

b. Adding the following new AD:

**2015-16-02 Airbus:** Amendment 39-18227. Docket No. FAA-2013-0834; Directorate Identifier 2012-NM-045-AD.

### (a) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### (b) Affected ADs

This AD replaces the ADs specified in paragraphs (b)(1) through (b)(9) of this AD.

- (1) AD 2003-14-11, Amendment 39-13230 (68 FR 41521, July 14, 2003).
- (2) AD 2004-11-08, Amendment 39-13654 (69 FR 31874, June 8, 2004).
- (3) AD 2004-13-25, Amendment 39-13707 (69 FR 41394, July 9, 2004).
- (4) AD 2004-18-14, Amendment 39-13793 (69 FR 55326,
- September 14, 2004).
  - (5) AD 2007-05-12, Amendment 39-14973 (72 FR 10057, March 7, 2007).
- (6) AD 2008-06-07, Amendment 39-15419 (73 FR 13103, March 12, 2008; corrected April 15, 2008 (73 FR 20367)).

- (7) AD 2009-18-20, Amendment 39-16017 (74 FR 46313,September 9, 2009).
  - (8) AD 2010-15-02, Amendment 39-16368 (75 FR 42589, July 22, 2010).
  - (9) AD 2012-04-07, Amendment 39-16963 (77 FR 12989, March 5, 2012).

### (c) Applicability

This AD applies to Airbus Model A330-201, -202, -203, -223, -243, -223F, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; certificated in any category; all manufacturer serial numbers.

# (d) Subject

Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

#### (e) Unsafe Condition

This AD was prompted by a determination that more restrictive maintenance requirements and airworthiness limitations are necessary. We are issuing this AD to address the aging effects of aircraft systems. Such aging effects could change the characteristics of those systems, which, in isolation or in combination with one or more other specific failures or events, could result in failure of certain life limited parts, which could reduce the structural integrity of the airplane or reduce the controllability of the airplane.

## (f) Compliance

Comply with this AD within the compliance times specified, unless already done.

### (g) Maintenance Program Revision and Actions

Within 6 months after the effective date of this AD, revise the maintenance program or inspection program, as applicable, by incorporating Airbus A330 Airworthiness Limitations Section (ALS) Part 4 – Aging Systems Maintenance, Revision 04, dated August 27, 2013, and Airbus A330 ALS Part 4 – Aging Systems Maintenance (ASM), Variation 4.1 and Variation 4.2, both dated July 23, 2014. The initial compliance times for the actions are within the applicable compliance times specified in the Record of Revisions pages of Airbus A330 ALS Part 4 – Aging Systems Maintenance, Revision 04, dated August 27, 2013, Airbus A330 ALS Part 4 – Aging Systems Maintenance (ASM), Variation 4.1 and Variation 4.2, both dated July 23, 2014, or within 6 months after the effective date of this AD, whichever is later, except as required by paragraph (h) of this AD.

### (h) Exceptions to Initial Compliance Times

- (1) Where Airbus A330 ALS Part 4 Aging Systems Maintenance, Revision 04, dated August 27, 2013, defines a calendar compliance time for elevator servo-controls having part number (P/N) SC4800-2, SC4800-3, SC4800-4, SC4800-6, SC4800-7, or SC4800-8 as "August 31, 2004," the calendar compliance time is June 13, 2007 (34 months after August 13, 2004 (the effective date of AD 2004-13-25, Amendment 39-13707 (69 FR 41394, July 9, 2004))).
- (2) Where Airbus A330 ALS Part 4 Aging Systems Maintenance, Revision 04, dated August 27, 2013, defines a calendar compliance time for spoiler servo-controls (SSCs) having P/N 1386A0000-01, P/N 1386B0000-01, P/N 1387A0000-01 or

P/N 1387B0000-01 as "December 31, 2003," the calendar compliance time is November 19, 2005 (13 months after October 19, 2004 (the effective date of AD 2004-18-14, Amendment 39-13793 (69 FR 55326, September 14, 2004))).

- (3) Where Airbus A330 ALS Part 4 Aging Systems Maintenance, Revision 04, dated August 27, 2013, defines a calendar compliance time for elevator servo-controls having P/N SC4800-73, SC4800-93, SC4800-103 and SC4800-113 as "June 30, 2008," the calendar compliance time is September 16, 2009 (17 months after April 16, 2008 (the effective date of AD 2008-06-07, Amendment 39-15419 (73 FR 13103, March 12, 2008; corrected April 15, 2008 (73 FR 20367)))).
- (4) The initial compliance time for replacement of the retraction brackets of the main landing gear (MLG) having a part number specified in paragraphs (h)(4)(i) through (h)(4)(xvi) of this AD is before the accumulation of 19,800 total landings on the affected retraction brackets of the MLG, or within 900 flight hours after April 9, 2012 (the effective date of AD 2012-04-07, Amendment 39-16963 (77 FR 12989, March 5, 2012), whichever occurs later.
  - (i) 201478303
  - (ii) 201478304
  - (iii) 201478305
  - (iv) 201478306
  - (v) 201478307
  - (vi) 201478308
  - (vii) 201428380

- (viii) 201428381
- (ix) 201428382
- (x) 201428383
- (xi) 201428384
- (xii) 201428385
- (xiii) 201428378
- (xiv) 201428379
- (xv) 201428351
- (xvi) 201428352
- (5) Where Airbus A330 ALS Part 4 Aging Systems Maintenance, Revision 04, dated August 27, 2013, defines a calendar compliance time for the modification of SSCs on three hydraulic circuits having part numbers MZ4339390-01X, MZ4306000-01X, MZ4339390-02X, MZ4306000-02X, MZ4339390-10X, or MZ4306000-10X as "March 5, 2010," the calendar compliance time is April 14, 2011 (18 months after October 14, 2009 (the effective date of AD 2009-18-20, Amendment 39-16017 (74 FR 46313, September 9, 2009))).
- (6) Where Note (6) of "ATA 27-64-00 Flight Control Spoiler Hydraulic Actuation," of Sub-part 4-2-1, "Life Limits," of Sub-part 4-2, "Systems Life Limited Components," of Airbus A330 ALS Part 4 Aging Systems Maintenance, Revision 04, dated August 27, 2013, defines a calendar date of "September 5, 2008," as a date for the determination of accumulated flight cycles since the aircraft initial entry into service, the

date is October 14, 2009 (the effective date of AD 2009-18-20, Amendment 39-16017 (74 FR 46313, September 9, 2009)).

(7) Where Note (6) of "ATA 27-64-00 Flight Control – Spoiler Hydraulic Actuation," of Sub-part 4-2-1, "Life Limits," of Sub-part 4-2, "Systems Life Limited Components," of Airbus A330 ALS Part 4 - Aging Systems Maintenance, Revision 04, dated August 27, 2013, defines a calendar compliance time as "March 5, 2010," for the modification of affected servo controls, the calendar compliance time is April 14, 2011 (18 months after October 14, 2009 (the effective date of AD 2009-18-20, Amendment 39-16017 (74 FR 46313, September 9, 2009))).

### (i) No Alternative Actions or Intervals

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (j)(1) of this AD.

# (j) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer,

International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; fax 425-227-1149. Information may be emailed to: 9-ANM-116-ACO-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

#### (k) Related Information

Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency (EASA) AD 2013-0268, dated November 7, 2013, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2013-0834.

### (l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

- (2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.
- (i) Airbus A330 Airworthiness Limitations Section ALS Part 4 Aging Systems Maintenance, Revision 04, dated August 27, 2013.
- (ii) Airbus A330 ALS Part 4 Aging Systems Maintenance (ASM),Variation 4.1, dated July 23, 2014.
- (iii) Airbus A330 ALS Part 4 Aging Systems Maintenance (ASM),Variation 4.2, dated July 23, 2014.
- (3) For service information identified in this AD, contact Airbus SAS,

  Airworthiness Office EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex,

  France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email

  airworthiness.A330-A340@airbus.com; Internet http://www.airbus.com.
- (4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on July 28, 2015.

Michael Kaszycki, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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